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EXAMINER: FOX, D

| ART UNIT | PAPER NUMBER |
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| 1803 | 19 |

DATE MAILED: 02/02/95

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This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

☑ This application has been examined ☑ Responsive to communication filed on 10/3/94, 11/7/94 ☑ This action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s), ——— days from the date of this letter. Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

**Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:**

1. ☑ Notice of References Cited by Examiner, PTO-892.
2. ☐ Notice of Draftsman's Patent Drawing Review, PTO-948.
3. ☐ Notice of Art Cited by Applicant, PTO-1449.
4. ☐ Notice of Informal Patent Application, PTO-152.
5. ☐ Information on How to Effect Drawing Changes, PTO-1474.
6. ☐ _____.

**Part II SUMMARY OF ACTION**

1. ☐ Claims 1, 4, 6-21 are pending in the application.

   Of the above, claims _____ are withdrawn from consideration.

2. ☑ Claims 2, 3, 5 have been cancelled.

3. ☐ Claims _____ are allowed.

4. ☑ Claims 1, 4, 6-21 are rejected.

5. ☐ Claims _____ are objected to.

6. ☐ Claims _____ are subject to restriction or election requirement.

7. ☑ This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.

8. ☐ Formal drawings are required in response to this Office action.

9. ☐ The corrected or substitute drawings have been received on _____. Under 37 C.F.R. 1.84 these drawings are ☐ acceptable; ☐ not acceptable (see explanation or Notice of Draftsman's Patent Drawing Review, PTO-948).

10. ☐ The proposed additional or substitute sheet(s) of drawings, filed on _____. has (have) been ☐ approved by the examiner; ☐ disapproved by the examiner (see explanation).

11. ☐ The proposed drawing correction, filed _____, has been ☐ approved; ☐ disapproved (see explanation).

12. ☑ Acknowledgement is made of the claim for priority under 35 U.S.C. 119. The certified copy has ☑ been received ☐ not been received ☐ been filed in parent application, serial no. _____; filed on _____.

13. ☐ Since this application apppears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.

14. ☐ Other

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EXAMINER'S ACTION

PTOL-326 (Rev. 2/93)

The Group and/or Art Unit location of your application in the PTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Group Art Unit 1803.

The rejection of the claims under 35 U.S.C. 101 has been withdrawn in view of the amendment of 3 October 1994.

The rejections of the claims under 35 U.S.C. 112, second paragraph, have been withdrawn in view of the amendment of 3 October 1994, except as indicated below.

Claims 1, 4 and 6-21 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1, 4, 6-8, 10 and 21 (newly submitted), and claims 9 and 11-20 (dependent thereon), are indefinite in their recitation of "essentially", as stated in the last office action for claims 1, 4-8 and 10, and claims 9 and 11-20 (dependent thereon). Claim 9 remains indefinite for failing to employ proper Markush terminology, as stated in the last office action for claims 1, 4, 7 and 9-10.

Applicants' arguments filed 3 October 1994 have been fully considered but they are not deemed to be persuasive. Applicants urge that rejection of the claims as being indefinite is improper, given the occurrence of minor variations in gene sequence which would not affect gene function. The Examiner maintains that the modification of even a single nucleotide may

result in the change in reading frame and the resultant loss of activity, so that claims drawn to DNA "essentially" having a particular sequence are indefinite in that the metes and bounds and function of such a sequence is unclear. If Applicants wish to claim any gene which will encode a particular portion of the potato GBSS protein, language such as, --a nucleotide sequence encoding the amino acid sequence of SEQ ID No. [any of 6-20, as appropriately corresponds to the nucleotide sequences of SEQ ID Nos. 1-3]--, is suggested. If Applicants wish to claim any promoter from the potato GBSS gene, language such as --an isolated promoter from the potato gene coding for granule-bound starch synthase (GBSS)-- is suggested. However, Applicants are cautioned against submitting an amendment after final which makes extensive revisions to the claims or adds a substantial number of new claims with varying scope.

The rejections of the claims under 35 U.S.C. 102(a) have been withdrawn in view of the submission of the certified translation of the Swedish priority document and the demonstration that Rohde et al. was distributed after the filing date of the foreign priority document.

The rejections of the claims under 35 U.S.C. 102(b) have been withdrawn in view of the amendment of 3 October 1994, which cancelled claim 5 and changed claim 6 to recite an isolated gene.

The rejections of the claims under 35 U.S.C. 102 or 103 have been withdrawn in view of the arguments in the amendment of 3

October 1994 and the demonstration in the Persson declaration of 7 November 1994 that the presence of the claimed antisense construct resulted in the production of potato tubers with materially different types of starch.

The rejections of the claims under 35 U.S.C. 103 have been withdrawn in view of the arguments in the amendment of 3 October 1994 regarding the lack of reasonable expectation of success that the antisense GBSS gene from potato would successfully inhibit amylose accumulation in tubers, given the lack of consistency of the results of Visser and the demonstration by references submitted with the amendment of 3 October 1994 that the relationship between amylose accumulation and the GBSS gene family was unclear.

No claim is allowed.

Applicant's amendment necessitated the new grounds of rejection. Accordingly, **THIS ACTION IS MADE FINAL.** See M.P.E.P. § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David T. Fox whose telephone number is (703) 308-0280.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0196.

January 27, 1995

DAVID T. FOX
PRIMARY EXAMINER
GROUP 180

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